

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 05-344584

(43)Date of publication of application : 24.12.1993

(51)Int.Cl. H04R 3/12  
G01S 15/00  
G10K 11/16  
H03H 17/04  
H03H 21/00  
H04R 3/04  
H04S 7/00

(21)Application number : 04-153224

(71)Applicant : MATSUSHITA ELECTRIC IND CO  
LTD

(22)Date of filing : 12.06.1992

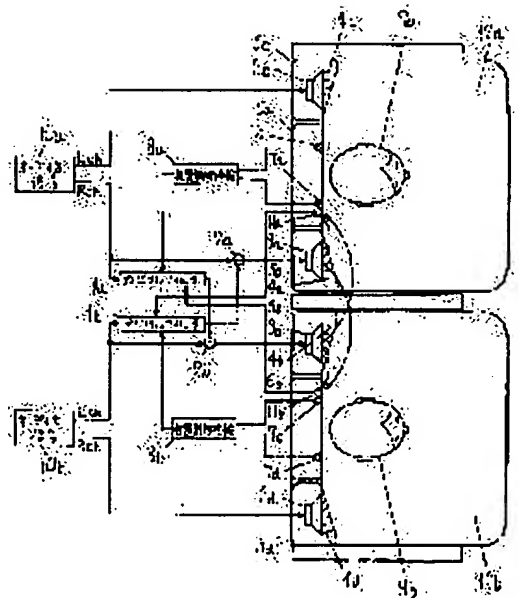
(72)Inventor : TAMURA TADASHI  
NAKAMA YASUTOSHI

## (54) ACOUSTIC DEVICE

### (57)Abstract:

**PURPOSE:** To provide the acoustic device which prevents the listening sound from being leaked out to the other person without using headphones or the like and prevents the other person's listening sound from coming in.

**CONSTITUTION:** The noise level brought about by the sound leakage from the next seat at the listening point of a seat 12 located in an acoustic space is detected by a microphone 11. Based on the detected value, a speaker 3 is driven by a digital filter 1 updating a coefficient so as to make the noise level of the microphone 11 to the minimum. At the same time, the ear position of a boarding person 9 in the vicinity of the listening point is detected by a position detecting device 7 which makes the two-dimensional detection of it. The digital filter 1 updates the coefficient so that the noise level of the microphone 11 located at the listening position is minimized even when the detected value changes. By locating an acoustic lens 4 so as to have the sharp directivity



characteristic in the direction of the listening position in a high range, the sound leakage to the next seat in the high range can be prevented.